

4797-58 (4034-22)
Serial No.: 09/617,853
Filed: July 17, 2000

REMARKS

Claims 1-15 are pending in the above-identified application. By this Amendment, Applicants have amended claims 1, 2, 10, 11, 14, and 15, and have added new claims 16-17.

The amendments to the claims and the new claims are supported by the application as originally filed, and do not introduce new matter. Particularly, support for the amendments to claims 1 and 14, and newly added claim 16 with respect to the price improvement process may be found at page 13, lines 1-9 of the specification, which provides that the system tracks trades of the same security for a predefined period of time, *e.g.*, a 30 second period, and a price improvement is applied which accords an improved price to offsetting trades occurring in the 30 second period of time, and at page 13, line 29-page 14, line 3, which provides that the system applies the price improvement process to all trades that the system determines to be applicable.

Support for the amendments to claims 1, 10, 14, and 15 with regard to exercising trades at the national best bid and offer price or derived price may be found at page 5, lines 1-2, which provides that the system proprietor determines a national best bid and offer price (NBBO) and a derived price, and at page 12, lines 1-4, which proves that the system determines the NBBO or the derived price and executes orders in accordance therewith. Support for the amendment to claim 15 with regard to the method of calculating the derived price may be found at page 9, lines 5-12 and also claim 10 as filed.

Support for newly added claim 17 may be found at page 14, lines 20-24, which provides that the price improvement process takes the average of two trades and applies the average to the trades so that the customer receives a price improvement, for example, of 1/8 point.

Accordingly, entry of the amendments is respectfully requested.

Summary of Telephone Interview

In a telephone interview that took place on February 2, 2005, the Examiner and the Applicant's undersigned representative discussed the price improvement process and he derived price aspects of the invention, and also discussed amending independent claims 1, 14, and 15 to clarify these aspects of the invention in the claims. The Examiner agreed that these aspects of the invention are not disclosed in the art of record insofar as the Examiner indicated that the proposed amendments to the claims would require an additional search.

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Claim Rejections – 35 U.S.C. § 101

The Examiner rejects claim 15 under 35 U.S.C. § 101 asserting that claim 15 “is not within the technological arts.” The Examiner suggests amending claim 15 to recite a computer in the preamble and in the body of the claim. The Applicants have herewith amended claim 15 as suggested by the Examiner such that the preamble of claim 15 currently recites “A computer implemented data processing method” and the body of claim 15 recites “storing information pertaining to an investor’s position and an offering inventory in a database associated with at least one computing device.” Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Claim Rejections – 35 U.S.C. § 112

The Examiner rejects claim 14 under 35 U.S.C. § 112 insofar as the Examiner is not able to ascertain the meaning of “Liquid Agency”. The Examiner requests that the Applicant point out the definition of the term in the specification and to clarify the claim language. The term Liquid Agency is used throughout the specification. For example, at page 4, lines 26-29 it is disclosed that “the present invention provides a computer implemented system for automated trading of fixed income financial instruments, and in particular, US Treasury, Liquid Agency, and Zero Coupon STRIP instruments.” The term “Liquid Agency” is used in combination with the term “financial instruments”, as recited in claim 14, to denote liquid type agency financial instruments or securities issued or guaranteed by a U.S. Government agency or by a government-sponsored entity, such as the Government National Mortgage Association (“Ginnie Mac”), the Federal Home Loan Mortgage Corporation (“Freddie Mac”) and Fannie Mae. Liquid type agency financial instruments are commonly referred to as “agency securities”.

The Applicants respectfully point out that the specification does not need to disclose that which is well known in the art and preferably omits that which is well known and readily available to the public. See *In re Buchner*, 929 F.2d 660, 661 (Fed. Cir. 1991). The Applicants enclose herewith an excerpt of the 83rd Annual Report (1996) pages 308-310, which indicate that the Federal Reserve has been dealing with federal agency securities as early as 1918, and a definition of agency securities provided by TheStreet.com, which

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comports with the above definition and further indicates that at the end of 1999 there were about \$1.6 trillion of agency securities outstanding. Both of these enclosures indicate that agency securities were well known in the art at the filing of the present application and thus do not need to be defined in the specification. Similarly, the Applicants do not need to amend the claim language in this respect since the term is not used inconsistent with its ordinary meaning. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Claim Rejections – 35 U.S.C. § 103

Claims 1-15 are pending in the above-identified application. In the Office Action dated November 4, 2004, the Examiner rejects claims 1-14 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,905,974 (Fraser, *et al.*) in view of U.S. Patent No. 6,505,174 (Keiser *et al.*), and claim 15 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,905,974 (Fraser, *et al.*) in view of U.S. Patent No. 5,987,432 (Zusman *et al.*), and further in view of U.S. Patent No. 6,505,174 (Keiser *et al.*). The Applicant respectfully traverses the rejections, and asserts that the claims pending in the present application, *i.e.*, claims 1-15, are patentable over Fraser, Keiser, and Zusman for at least the reasons stated below.

The present invention is drawn toward automated trading of financial instruments. Particularly, independent claims 1 and 14, as amended, and the claims dependent thereon, including newly added claim 16, feature, among other things, a computer implemented system proprietor that determines if a trade executed by the system is an offsetting trade and applies a price improvement process to at least one offsetting trade, which process improves a price of the offsetting trade for at least one party to the offsetting trade. An offsetting trade is at least one of a plurality of trades of a same financial instrument, which are executed within a predefined period of time from each other. Neither Fraser, Keiser, nor Zusman, either alone or in combination, disclose or otherwise suggest financial instrument trading systems or methods that apply a price improvement to offsetting trades as claimed.

Independent claim 15 and claim 10 feature computer systems and methods that determine or compute a derived price, *e.g.*, in the event a national best bid and offer price is not available. The derived price is calculated by determining a spread between a last transaction price and a desired transaction benchmark for the financial instrument,

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determining a current existing price of the desired benchmark, and adding the spread to the current existing price of the benchmark. Neither Fraser, Keiser, nor Zusman, either alone or in combination, disclose or otherwise suggest financial instrument trading systems or methods that calculate a derived price as claimed.

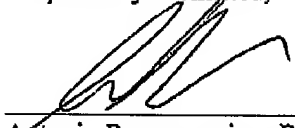
Newly added claim 17, which depends on claim 1, further recites that the price improvement process includes computing an average of the execution prices of a plurality of offsetting trades and applying the average of the execution prices to at least one of the offsetting trades, which is further not disclosed or suggested by Fraser, Keiser, or Zusman.

The other dependent claims are patentable for additional reasons. While deemed unnecessary to argue these additional reasons at this time, given the arguments presented above, the Applicants reserve the right to present such arguments should it become necessary or desirable to do so. Moreover, the Applicants repeat and renew their arguments presented in the previous responses against the Examiner's assertions with regard to the disclosure of the art of record.

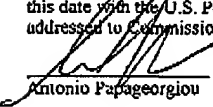
For the above reasons, the Applicant submits that their invention as claimed is patentable over the references cited by the Examiner. Accordingly, reconsideration and allowance of pending claims 1-15 and the newly added claims 16-17 is respectfully solicited. The Applicants thank the Examiner for her suggestions and further invite the Examiner to contact the Applicant's undersigned representative to expedite prosecution.

Respectfully submitted,

Date: February 4, 2005


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I hereby certify that this paper and any accompanying papers referenced herein are being transmitted by Facsimile to the USPTO 703-872-9306 or deposited this date with the U.S. Postal Service as First Class Mail with sufficient postage addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450


Antonio Papageorgiou

February 4, 2005
Date

^{83rd} Annual Report 1996



Board of Governors of the Federal Reserve System

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14. Reserves of Depository Institutions, Federal Reserve Bank Credit, and Related Items—
Year-End 1918-96, and Month-End 1996

Millions of dollars

Period	Factors supplying reserve funds										
	Federal Reserve Bank credit outstanding							Gold stock ⁴	Special drawing rights certificate account	Treasury currency outstanding ⁵	
	U.S. Treasury and federal agency securities			Loans	Float ¹	All other ²	Other Federal Reserve assets ³				Total
	Total	Bought outright	Held under repurchase agreement								
1918.....	239	239	0	1,766	199	294	0	2,498	2,873	...	1,795
1919.....	300	300	0	2,215	201	575	0	3,292	2,707	...	1,707
1920.....	287	287	0	2,687	119	262	0	3,355	2,639	...	1,709
1921.....	234	234	0	1,144	40	146	0	1,563	3,373	...	1,842
1922.....	436	436	0	618	78	273	0	1,405	3,642	...	1,958
1923.....	134	80	54	723	27	355	0	1,238	3,957	...	2,009
1924.....	540	536	4	320	52	390	0	1,302	4,212	...	2,025
1925.....	375	367	8	643	63	378	0	1,459	4,112	...	1,977
1926.....	315	312	3	637	45	384	0	1,381	4,205	...	1,991
1927.....	617	560	57	582	63	393	0	1,655	4,092	...	2,006
1928.....	228	197	31	1,056	24	500	0	1,809	3,854	...	2,012
1929.....	511	488	23	632	34	405	0	1,583	3,997	...	2,022
1930.....	739	686	43	251	21	372	0	1,373	4,306	...	2,027
1931.....	817	775	42	638	20	378	0	1,853	4,173	...	2,035
1932.....	1,855	1,851	4	235	14	41	0	2,145	4,226	...	2,204
1933.....	2,437	2,435	2	98	15	137	0	2,688	4,036	...	2,303
1934.....	2,430	2,430	0	7	5	21	0	2,463	8,238	...	2,511
1935.....	2,431	2,430	1	5	12	38	0	2,486	10,125	...	2,476
1936.....	2,430	2,430	0	3	39	28	0	2,500	11,258	...	2,532
1937.....	2,564	2,564	0	10	19	19	0	2,612	12,760	...	2,637
1938.....	2,564	2,564	0	4	17	16	0	2,601	14,512	...	2,798
1939.....	2,484	2,484	0	7	91	11	0	2,593	17,644	...	2,963
1940.....	2,184	2,184	0	3	80	8	0	2,274	21,995	...	3,087
1941.....	2,254	2,254	0	3	94	10	0	2,361	22,737	...	3,247
1942.....	6,189	6,189	0	6	471	14	0	6,679	22,726	...	3,648
1943.....	11,543	11,543	0	5	681	10	0	12,239	21,938	...	4,094
1944.....	18,846	18,846	0	80	815	4	0	19,745	20,619	...	4,131
1945.....	24,252	24,252	0	249	578	2	0	15,091	20,065	...	4,339
1946.....	23,350	23,350	0	163	580	1	0	24,093	20,529	...	4,562
1947.....	22,559	22,559	0	85	535	1	0	23,181	22,754	...	4,562
1948.....	23,333	23,333	0	223	541	1	0	24,097	24,244	...	4,589
1949.....	18,885	18,885	0	78	534	2	0	19,499	24,427	...	4,598
1950.....	20,778	20,725	53	67	1,368	3	0	22,216	22,706	...	4,636
1951.....	23,801	23,605	196	19	1,184	5	0	25,009	22,695	...	4,709
1952.....	24,697	24,034	663	156	967	4	0	25,825	23,187	...	4,812
1953.....	25,916	25,318	598	28	935	2	0	26,880	22,030	...	4,894
1954.....	24,932	24,888	44	143	808	1	0	25,885	21,713	...	4,985
1955.....	24,785	24,391	394	108	1,585	29	0	26,507	21,690	...	5,008
1956.....	24,915	24,610	305	50	1,665	70	0	26,699	21,949	...	5,066
1957.....	24,238	23,719	519	55	1,424	66	0	25,784	22,781	...	5,146
1958.....	26,347	26,252	95	64	1,296	49	0	27,755	20,534	...	5,234
1959.....	26,648	26,607	41	458	1,590	75	0	28,771	19,456	...	5,311
1960.....	27,384	26,984	400	33	1,847	74	0	29,338	17,767	...	5,398
1961.....	28,881	30,478	159	130	2,300	51	0	31,362	16,889	...	5,585
1962.....	30,820	28,722	342	38	2,903	110	0	33,871	15,978	...	5,567
1963.....	33,593	33,582	11	63	2,600	162	0	36,418	15,513	...	5,578
1964.....	37,044	36,506	538	186	2,606	94	0	39,930	15,388	...	5,405

For notes see end of table.

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14. Reserves of Depository Institutions, Federal Reserve Bank Credit, and Related Items—
Year-End 1918-96 and Month-End 1996—Continued

Millions of dollars

Period	Factors supplying reserve funds										Special drawing rights certificate account	Treasury currency outstanding ⁵
	Federal Reserve Bank credit outstanding							Gold stock ⁴				
	U.S. Treasury and federal agency securities			Loans	Float ¹	All other ²	Other Federal Reserve assets ³		Total			
	Total	Bought outright ¹⁰	Held under repurchase agreement ¹¹									
1965.....	40,768	40,478	290	137	2,248	187	0	43,340	13,733	...	5,575	
1966.....	44,316	43,655	661	173	2,495	193	0	47,177	13,159	...	6,317	
1967.....	49,150	48,980	170	141	2,576	164	0	52,031	11,982	...	6,784	
1968.....	52,937	52,937	0	186	3,443	58	0	56,624	10,367	...	6,795	
1969.....	57,154	7,154 ³	0	183	3,440	64	2,743	64,584	10,367	...	6,852	
1970.....	62,142	62,142	0	335	4,261	57	1,123	67,918	10,732	400	7,147	
1971.....	70,804	69,481	1,323	39	4,343	261	1,068	76,515	10,132	400	7,710	
1972.....	71,230	71,119	111	1,981	3,974	106	1,260	78,551	10,410	400	8,313	
1973.....	80,495	80,395	100	1,258	3,099	68	1,152	86,072	11,567	400	8,716	
1974.....	85,714	84,760	954	299	2,001	999	3,195	92,208	11,652	400	9,253	
1975.....	94,124	92,789	1,335	211	3,688	1,126	3,312	102,461	11,599	500	10,218	
1976.....	104,093	100,062	4,031	25	2,601	991	3,182	110,892	11,598	1,200	10,810	
1977.....	111,274	108,922	2,352	265	3,810	954	2,442	118,745	11,718	1,250	11,331	
1978.....	118,591	117,374	1,217	1,174	6,432	587	4,543	131,327	11,671	1,300	11,831	
1979.....	126,167	124,507	1,660	1,454	6,767	704	5,613	140,705	11,172	1,800	13,083	
1980.....	130,592	128,038	2,554	1,809	4,467	776	8,739	146,383	11,160	2,518	13,427	
1981.....	140,348	136,863	3,485	1,601	1,762	195	9,230	153,136	11,151	3,318	13,687	
1982.....	148,837	144,544	4,293	717	2,735	1,480	9,890	163,659	11,148	4,618	13,786	
1983.....	160,795	159,203	1,592	918	1,605	418	8,728	172,464	11,121	4,618	15,732	
1984.....	169,627	167,612	2,015	3,577	833	0	12,347	186,384	11,096	4,618	16,418	
1985.....	191,248	186,025	5,223	3,060	988	0	15,302	210,598	11,090	4,718	17,075	
1986.....	221,459	205,454	16,005	1,565	1,261	0	17,475	241,760	11,084	5,018	17,567	
1987.....	231,420	226,459	4,961	3,815	811	0	15,837	251,883	11,078	5,018	18,177	
1988.....	247,489	240,628	6,861	2,170	1,286	0	18,803	269,748	11,060	5,018	18,799	
1989.....	235,417	233,300	2,117	481	1,093	0	39,631	276,622	11,059	8,518	19,628	
1990.....	259,786	241,432	18,354	190	2,566	0	39,880	302,421	11,058	10,018	20,404	
1991.....	288,429	272,531	15,898	218	1,026	0	34,524	324,197	11,059	10,018	21,017	
1992.....	308,518	300,424	8,094	675	3,350	0	30,278	342,820	11,056	8,018	21,452	
1993.....	349,865	336,653	13,212	94	963	0	33,394	384,316	11,053	8,018	22,101	
1994.....	378,746	368,156	10,590	223	740	0	33,441	413,150	11,051	8,018	22,912	
1995.....	394,693	380,831	13,862	136	231	0	33,483	428,543	11,050	10,168	23,951	
1996.....	414,715	393,132	21,583	85	5,297	0	32,222	452,319	11,048	9,718	24,798	

TheStreet.com

<http://www.thestreet.com/tso/basics/tscglossary/agencysecurities.html>**agency securities**

Agency securities are bonds and notes issued by government-sponsored enterprises, or GSEs, including Fannie Mae (ENM:NYSE), Freddie Mac (FRE:NYSE) and the Federal Home Loan Bank. They are the highest-quality debt instruments after Treasury securities.

Don't confuse agency securities with mortgage-backed securities, some of which are issued by the same entities.

At the end of 1999, there were about \$1.6 trillion of agency securities outstanding, compared to \$3.6 trillion of Treasuries. But with Treasury issuance declining and agency issuance rising, the agency market is on track to pass the Treasury market in size by 2004.

Agency securities are a variety of spread product and are evaluated as such.

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